ST. FRANCIS and the life sciences agree—earth’s creatures live in dynamic relationship with each other. *The Canticle of the Creatures* sings of creation as a familial, interdependent system. All elements have a particular role, all are related, all play a part.

Biology and ecology confirm this through scientific means. For most of the 20th century, biologists described nature as “red in tooth and claw,” as shaped primarily by relationships of competition and predation: It was eat lunch or be lunch.

Recent scientific discoveries have highlighted the relationships of mutual interdependence, even cooperation among different species. Ecology makes this clear: Life is diverse, interdependent and vulnerable.

St. Francis celebrated these spiritual insights centuries before biology or ecology were developed. He recognized creation as good, lived out conscious relationships with elements and creatures, and expressed compassion toward them. His example inspires us to care for creation today.

The diversity of life is also known as biodiversity, and we humans are woven into life’s fabric. The biodiversity crisis describes the full scale of species extinction. There is a Franciscan response to the biodiversity crisis based on a vision...
**Preservation Matters**

OCTOBER 2007 23

Of humans as brother and sister to all creation.

**Of Rabbits, Worms and Crickets**

Biodiversity should have a special importance in Franciscan spirituality because of the importance of diverse creatures in the life of Francis. The early stories of his life relate more than a dozen encounters with rabbits, worms, lambs, fish and crickets. Birds appear most frequently in these stories, and Francis referred to them as “noble creatures.”

Unlike other medieval saints, Francis was profoundly impacted by his encounters with creatures. The story of Francis preaching to the birds illustrates this point well. Most modern people are tickled to discover a saint who preached to creatures, but the most important lesson from this encounter is related after he preached to the birds and they flew away. Thomas of Celano wrote, “After the birds had listened so reverently to the Word of God, he began to accuse himself of negligence because he had not preached to them before. From that day on, he carefully exhorted all birds, all animals, all reptiles, and also insensible creatures, to love the Creator, because daily, invoking the name of the Savior, he observed their obedience in his own experience.”

The most important part of this story is not that he preached to birds but that his preaching to birds had an impact on him. After his encounter with the birds, he “woke up” and recognized that they were his brothers and sisters as well.

In the same way we may ask, how do we relate to this richly diverse earth as brother and sister?

**Dynamic Ecosystems**

The oikos—God’s house—brims over with a rich diversity of life. Metaphorically, all creatures need food, a home and a family. Ours is not a homogenous, monotonous home planet; no, for it offers an abundance of food sources, diverse habitats and vibrant ecosystems. The diversity of environmental conditions offers a multiplicity of diverse strategies for organisms to make a living, and thus the diversity of life.

But ecosystems are so dynamic that each creature can reshape them and allow other creatures to make their living, and thus further diversify life in that ecosystem. For example, after a wet winter, a pond or small wetland develops. Migratory birds carry in seeds for specialized, water-loving plants from their droppings. Some insects are attracted to the wetland for food or shelter, which in turn attracts insect-eating birds, who may find the right conditions for nesting. Thus, soil and water alone do not define ecological niches. Life depends upon life’s diversity.

Several examples illustrate how humans benefit from life’s diversity. The lowly earthworm, picked up from the road by St. Francis, helps humans by tilling the soil. Its tunneling opens up air passages, helps the soil hold the right balance of water and allows microscopic creatures to convert rock and

PHOTO FROM DESIGN PCS BY NATURAL SELECTION/DAVID SPIER
organic matter into fertile soil. Earthworm castings provide terrific natural fertilizer, which provides nutrients and energy for other decomposers. Worms are among the largest of soil creatures, and they help make the right conditions for the formation of topsoil. Organic farmers evaluate soil health by the number of earthworms they find in it. Food for humans depends on healthy soil, so we benefit from the work of earthworms. Our lives depend upon life’s diversity. (See box on p. 45.)

Agriculture would collapse without the pollination work of bees, whom Francis praised for their hard work. Many plants depend upon insects to fertilize their flowers. These plants have evolved the ability to produce proteins in their pollen, attracting bees. As they move from flower to flower, bees (and some other insects) transfer a portion of the pollen to other flowers, fertilizing them.

God must delight in diversity, for creation certainly abounds with it. The low-end guess for the number of currently identified species on earth is 1.9 million, give or take 100,000! Although one entomologist proposed the number of earth’s species to be as high as 30 million, scientific consensus has converged around an estimate of 12.5 million total species.

Habitat Conservation Is Vital
Human society too depends upon the health of ecosystems and biodiversity. “Ecosystem services” are the benefits to human society from the environment. Clean water, fertile soil and pollination of native and agricultural plants result from the service of creatures in their ecological niches. Wetlands and forests clean water. Wood and paper depend upon forest health. Marine fisheries depend upon clean coasts and oceans.

Preserving the diversity of life requires habitat conservation. If a species loses its habitat, or even if an ecological niche changes in subtle but biologically important ways, it may not survive. Many migratory songbirds are threatened by loss of habitat due to forest fragmentation in the United States and Central America.

Ecosystems around the world are suffering from degradation due to human activities, and this is pushing many species to the brink of extinction. The International Union for the Conservation of Nature organizes global information about the biodiversity crisis, and its 2006 report documents the accelerating rate of extinction. Of the 40,000 species assessed, over 16,000 are at imminent risk of extinction, and that number is rising rapidly. Birds and amphibians are the most at risk.

Two Lesser Ethical Approaches
Over the past few decades, many religious people have begun to recognize the ethical dimension of environmental issues, and many religious leaders and organizations are speaking out on behalf of the integrity of creation. This new effort, known as the greening of religion, marks a new stage in the dialogue between science and religion.

Until recently, environmental concerns have been defined as scientific problem (by scientists) or as government policy problems (by activists). The environment has generally not been framed as having moral significance, although this is beginning to change. Among faith communities, the simple shift in language from “environment” to “creation” indicates that the earth is not passive or morally neutral, but rather sacred, and signals that it belongs to God.

Let us examine three simple ways of organizing ethical thought about the integrity of creation:

The first ethical approach can be summarized as an adaptation of the Golden Rule: Do unto the earth as you would want done unto you. Do not pollute drinking water, because someone will have to drink it. Do not pollute the air, because someone will have to breathe it. Do not fish out all the species in the ocean, because future generations will need them to feed themselves.

In this context, the diversity of life is valued only for its benefits to us: It feeds us, provides us fiber or pleases us with its beauty. Although its adoption would mark progress in some areas, this is not a particularly mature approach because it carries forward an attitude of human domination, that the earth really exists only for humans.

The emphasis on managing resources solely for human benefit is consistent with utilitarian, capitalist economics. It does not reflect a biblical or Franciscan view of creation or an ecologically informed understanding of our planet.

The second approach has emerged as Scripture scholars and theologians have recognized the creation accounts of Genesis Chapters One and Two as laying the foundation for a stewardship ethic in Judaism and Christianity. Their most important contribution has been to challenge conventional interpretations of God granting human beings dominion over the earth. Genesis 1:28
reads: “God blessed them, saying: ‘Be fertile and multiply; fill the earth and subdue it. Have dominion over the fish of the sea, the birds of the air, and all the living things that move on the earth.’”

The word dominion has a very different connotation today than in the ancient Near East. Our human dominion over the earth’s to echo the love, care and responsibility that God has toward the created world. God’s dominion is founded upon love and justice; it could not be exploitive or abusive.

The same special concern that God has for the poor, the immigrant, the widow and orphan extends to the vulnerable members of creation. Many Jews and Old Testament scholars now recognize that Genesis, the Torah and the Psalms speak of God’s care for all creation, of which human beings are but a part. Humans have been accorded special gifts, but also special responsibilities to care for the earth as God cares for it.

If we believe that God’s love is reflected in creation, how could we fail to safeguard it? Christian environmental ethics rooted in Genesis emphasize responsibility: We are given the duty to care for creation. It does not belong to us. The earth is the Lord’s and we must steward it on God’s behalf. This was a consistent theme in the environmental teachings of Pope John Paul II.

Stewardship ethics obligate people of faith to learn the basic elements of ecological science, for we cannot discharge this responsibility in ignorance. We must be able to use our human intelligence to make better decisions. Ecology is particularly helpful for this task because it helps us to recognize relationships and to learn from previous mistakes.
Francis’ Humble Approach

The third approach, the Franciscan approach to care for creation, expresses Francis’ practice of humility in a way that neither utilitarian nor stewardship ethics do. Francis was a brother to all creation; he was not a steward. He did not view elements or animals as something for which he was responsible but rather as brothers and sisters to which he related. Francis rejected power, ownership and authority for himself. He wanted to be humble, to live in solidarity with creation just as Christ did through the Incarnation.

Francis recognized Jesus as “brother” through his shared humanity with others and thus his shared corporeality. His encounters with animals provoked a greater consciousness of his vocation of brother to all creation.

Francis lived out of a horizontal, not a vertical, relationship with the earth. He manifested a familial or kinship ethic. He did not speak of stewardship, of being in charge, of being responsible or of managing creation. Francis and Franciscan theologians describe the earth and its diversity as sacramental.

Life on earth has intrinsic value because it is created by God, not merely because of its economic worth. The vast majority of species, in fact, serve no genuine functional purpose for humans. What value does a “useless” creature have in modern society where everything has a rank according to its economic worth? If an endangered species has no economic value, who will speak on behalf of its survival?

Yet in the Franciscan tradition, creation has integrity and intrinsic value not because of its “worth” but because it is a reflection of God. Francis observed God’s creatures and learned from them. From the birds, he realized that he had the responsibility to preach to them, to care for them, to share his essential identity as a creature of God with them. From the earthworm, he learned humility. He lived simply, close to the soil and the earth.

From the bees he learned community, conviviality. He praised their hard work and their cooperative living. Francis understood himself as brother to all creation. If we understand our identity to be that of sister or brother to all creation, what do we need to do?

First, we have to recover our ecological niche, our role in creation, based on our identity as “in-relationship-to” the rest of the earth. We must develop greater awareness of the choices we make that harm the earth and its creatures. These choices are individual and social.

Second, we can make a greater impact by engaging others. Franciscan spirituality is a common project, lived out in relationship to other humans and creatures. Francis can inspire us to speak on behalf of God’s other creatures, to take action to protect their habitat, and to promote policies that protect the integrity of life on Earth.

Learning how to live in relationship is fundamental to following the patron saint of ecology. Francis was open to relationship, to receiving from all, whether leper, human brother and sister, worms, birds, bishops, water, fire, wind or Blessed Mother. Francis recognized the Incarnate Word of God in all living creatures. His openness meant he could recognize the blessing of being brother to all, and his response was humility. He did not practice domination or authority but sought to live as co-creature. He bore the pain of the world in his heart and, in this way, he followed in the footsteps of his Lord.


Keith Douglass Warner, O.F.M., is a lecturer and researcher at Santa Clara University (California), where he teaches in the interdisciplinary Environmental Studies Institute. He studies sustainable agriculture and environmental policy, and teaches about the greening of religion and the value of biodiversity. He is the author of Agroecology in Action: Extending Alternative Agriculture Through Social Networks (MIT Press, 2007).